

# EXHIBIT 9

**From:** Ronald Mao [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=F7CE60B974854C87898C2E04696D6F14-RONALD.MAO]  
**Sent:** 7/9/2019 9:35:47 PM  
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**Subject:** RE: RE: PLMN conflict with NA CloudCore  
**Attachments:** CBRS Alliance ATIS Shared HNI Webinar Deck 11.5.18.pdf

Hi Andy, Jesse:

CBRS designed SHNI because CBRS is a shared spectrum so with SHNI multiple CBRS operators can share the same HNI, i.e. 315010. Individual operators then register IBN for their own networks. This PLMN-ID can only be used for CBRS, and all registration must be reported to CBRS Alliance. I have attached a webinar presentation describing SHNI.

Regards,  
Ronald Mao  
Director of Carrier Solutions  
Baicells Technologies North America  
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**From:** Andy Yang <andy.yang@na.baicells.com>  
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**Subject:** RE: RE: PLMN conflict with NA CloudCore

According to ITU information, the US region HNI (MCC+MNC) can be registered thru iconectiv IMSI. I had submitted the inquiry and wait for the response on the process. Since we are not a network operator, I am not sure if Baicells is qualified to get HNI.

Regards,

Andy Yang

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**From:** jesse@baicells.com <jesse@baicells.com>  
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**Subject:** RE: RE: PLMN conflict with NA CloudCore

So another things to add, the CBR Alliance has registered their own PLMN as well, which is **315010**. It is classified as a SHNI (Shared Home Network Identifier) and it looks like this is the first time a shared PLMN has been assigned. I am attaching related documents for reference.

I can see that Ruckus and Athonet are using this PLMN by default now with their products. Documentation links:

<https://docs.arris.com/bundle/ruckuscloud-201803b-lte-onlinehelp/page/GUID-B9A09C46-9B60-4915-9465-028FC29E5762.html>

[https://static.athonet.cloud/saas/operational\\_requirements.pdf](https://static.athonet.cloud/saas/operational_requirements.pdf)

When using the CBR SHNI (315010), the IMSI is broken into 4 groups as shown below:



MCC = 315

MNC = 010

IBN = IMSI Block Number. A unique 4 digit code which is obtained by a CBR operator.

UIN = User ID Number. Last 5 digits which is unique to each subscriber.

It looks like you can [apply for IBN numbers at iconectiv IMSI](#) and you can see that Ruckus, Boingo, ATC, ExteNet, Motorola and others already have their own IBN numbers. Each IBN number costs \$325 (with annual maintenance fee) and takes 10 business days to be issued.

So it looks like this could be one option (likely quickest), but it is designed for CBR only and not sure if we are allowed to use other bands with this.

@Ronald Mao @yunxiang Have either of you been following this part of CBR (SHNI and other shared CBR LTE identifiers)?

@'Andy Yang' Perhaps you could also reach out to iconectiv as they seem to have experience with MCC+MNC registration as well.

Thanks,



Jesse Raasch

CTO & VP, Emerging Business

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From: [jesse@baicells.com](mailto:jesse@baicells.com) <[jesse@baicells.com](mailto:jesse@baicells.com)>

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**Subject:** RE: RE: PLMN conflict with NA CloudCore

+@Andy Yang As discussed, please find the link for the PLMN registration below. If you could help with researching and evaluating the process, that would be great.

Thanks,



Jesse Raasch

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**Subject:** Re: RE: PLMN conflict with NA CloudCore

Jesse,

PLMN includes MCC(Mobile Country Code) and MNC(Mobile Network Code), our network is operating in America, so I think we have to apply an american PLMN.

We'd better to talk with WISPA customer to learn how to apply a WISPA PLMN.

So I think USA team is the best choice to take charge of this task.

Thanks

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**From:** jesse@baicells.com

**Date:** 2019-07-09 11:53

**To:** xiongzhwei@baicells.com; '白炜 | BaiWei'; 'WuJunfeng'; 'wangyu'; 'sunlixin'; '师小华'; 'Bo Wei'

**Subject:** RE: RE: PLMN conflict with NA CloudCore

So sounds like we are all in agreement to register for our own PLMN asap? Can you take charge of this task Xiongzhwei?

Thanks,



Jesse Raasch



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**From:** [xiongzhiwei@baicells.com](mailto:xiongzhiwei@baicells.com) <[xiongzhiwei@baicells.com](mailto:xiongzhiwei@baicells.com)>  
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**Subject:** 回复: RE: PLMN conflict with NA CloudCore

Hi Baiwei and Jesse,

I had checked our azure EPC configurations, now, the PLMN had been set to "31198" and there are 69183 USIMs written with format "31198000\*\*\*\*\*".

We can execute below steps to resolve #1.

1. Change MME's PLMN on Azure EPC.
2. Change PLMN on eNB one by one to broadcast a new PLMN.

Impact to network:

We need to restart EPC service. it will cause EPC service interruption about 5 minutes.

User attachment with old cards may take longer time.

For #2, I also suggest to register an official PLMN asap.

thanks.

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主题 : RE: PLMN conflict with NA CloudCore  
Hi, Jesse

I assume register PLMN is not difficult in any case, otherwise, if WISP can do, there is no reason that we can't do.

The first issue is really difficult, @Xiong, can we check if there is any way to block the CPE to attach other network which has 6 digit PLMN?



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**Subject:** RE: PLMN conflict with NA CloudCore

Hi BaiWei,

On #1, I think changing all the SIM cards is not very realistic due to the high volume of units already deployed in the field and I'm not so sure this would be a mandatory requirement. I think the bigger concern/issue is with the broadcasting of the PLMN from the eNB. All IMSI information is already entered in the Cloud HSS and as long as roaming is enabled on the CPE, it will be able to attach and authenticate to the eNBs, even if the eNB broadcasts a different PLMN ID.

On #2, I don't have direct experience with this, but registration info through GSMA can be found here: <https://www.gsma.com/newsroom/resources/ts-25-mobile-network-codes-and-names-guidelines-and-application-form/>. Additionally, I have attached the related ITU-T E.212 document (Chinese version) as well.

Thanks,



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**Subject:** RE: PLMN conflict with NA CloudCore

Hello, Jesse

Regarding this issue, I have a few questions

1. If we change the PLMN, do we need to re-write all the SIM card?
2. Register for PLMN in US, what is required?

I personally would suggest that may get one official PLMN, that provide us some future potentials but we will also need to understand the cost and if we need to change the SIM card of our customer.



BaiWei

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**Subject:** PLMN conflict with NA CloudCore

**Importance:** High

Dear team,

I received a call today from one of our customers (*Steve Barnes at New Lisbon Broadband*) who said that [LigTel](#) reached out and claimed that he was using their PLMN. Steve then told me that LigTel plans to send Baicells a cease and desist letter. The PLMN we have set on CloudCore is **31198** and the PLMN that LigTel is using is **311980**. You can see all of the MCC & MNC codes being used in the US here: [https://en.wikipedia.org/wiki/Mobile\\_Network\\_Codes\\_in\\_ITU\\_region\\_3xx\\_\(North\\_America\)#United\\_States\\_of\\_America\\_-\\_US](https://en.wikipedia.org/wiki/Mobile_Network_Codes_in_ITU_region_3xx_(North_America)#United_States_of_America_-_US)

From technical point of view, the eNB and SIM cards are using a 5 digit PLMN, so it does not exactly match with LigTel, but it appears our PLMN is not registered and there are no other 5 digit PLMNs registered in the US. I'm not so sure that LigTel or any court will buy our argument on our PLMN being used is different.

So, some questions from my end:

1. Who is in charge of managing our CloudCore PLMNs and how was 31198 selected?
2. Was any MCC+MNC registration made with the ITU?

My suggestion is we register for a new MCC+MNC code ASAP to get a new PLMN that we can use which is officially registered so that we can avoid any potential conflict like this. Or pick something well out of range. For example, Telrad uses 001001 with their SIM cards and EPC for customers which do not have their own registered PLMN.

Thoughts?



Jesse Raasch

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